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Optimize or Digitize?

By Thomas H. Davenport

I was not expecting this reaction. Earlier this summer I was teaching in a "Competing on Big Data and Analytics" executive program at Harvard Business School. I had co-authored and was teaching a case study on Procter & Gamble, which has done some great work to optimize decision-making through analytics. I had taught the same case the previous year—Filippo Passerini, the company's visionary CEO came up to Boston to comment on the discussion—and people seemed very engaged.

This year, however, I was puzzled by many of the points in the discussion. When I suggested that Mr. Passerini had made great progress in getting data faster from syndicators like Nielsen, someone said, "Why don't they sell stuff over the Internet and then they would have the data already?" When I mentioned that P&G had an eStore to get some direct exposure to end customers, somebody argued that it wasn't a serious channel to customers. There were several other comments along the lines that P&G was optimizing its existing business when it should be digitizing and transforming the business.

I figured out later why these questions and comments may have come up this year. HBS has a new digital transformation course, and Marco Iansiti, who teaches it, had offered some new cases from that class on Amazon .com Inc. and the Google Inc. self-driving car just before I taught the P&G case. Clearly the attendees had been schooled in digitization. And it's clearly a sexy idea—at least when you only have to discuss it in a case study and not implement it in reality.

I'm not a consultant to P&G at the moment, and I don't know enough about the company to know whether digitization or optimization should be its primary focus. They clearly have done pretty well for 176 years with a primarily non-digital business. P&G had a digitization initiative a couple of years ago, but I believe the primary focus was on internal processes. I imagine that they would not be interested in putting their relationships with retailers at risk in establishing their own direct channel, and it's not clear that we will want to have our Tide, Ivory, Olay, Gillette, and other P&G brands delivered to our homes after ordering them online.

However, the question of whether to optimize using analytics, or to digitize the business altogether, keeps coming up. This week, for example, I met with a senior IT executive of one of the world's largest national postal organizations at the Vertica Big Data Conference. He told me that his organization was doing a variety of interesting things to optimize its business with analytics. Perhaps influenced by the P&G discussion, I asked whether they were doing much to digitize mail flow. He said that they have done some experiments, but there were several problems with digitization in their business. One, it competes with their customers who want them to deliver their physical mail. Two, they already have more products now than their

customers and their front-line employees can easily deal with. Finally, the other organizations that have created digitized mail, according to this executive, aren't making much money at it. This includes both national mail systems in other countries and private businesses. I went into the meeting with this manager thinking that digitization should have more focus than optimization in the mail business, but changed my mind after talking with him.

Last week I spent time with a number of radiologists from the American College of Radiology. Since the primary output of radiology is digital, I was pretty confident that the radiology profession would be heavily focused on digitization—more images, more automated analysis of them, more direct transmission to patients, etc.—rather than optimization. But the culture and strategy of the U.S. health-care industry is moving radiologists toward optimization. What they seek is more speed, more productivity, and more value for patients. Many radiologists are not particularly enthused about a future in which imaging devices become cheap and pervasive; that might threaten their jobs. So here's another case in which optimization trumps digitization, at least for the moment.

Digitization is an appealing concept, and we will certainly see more of it in the near and distant future. I think it makes sense for most businesses to be exploring greater digitization and to have pilots and tests underway. But even if you're not ready for massive digitization, there are still plenty of data and analytics that you can use in an optimization context. If you can't see a way to take your primary business online, focus on optimizing it. After all, there is still a physical world that we all live in.

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